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ABSTRACT

The inadequacies of traditional and transformational models of grammar are overcome in the systemic-functional approach of Halliday, where meaning is built into the grammar and the text is the basic unit. Here, the functional approach is seen in the stress on the role of social/cultural context and in the importance of the role of register, which consists of the environment in which text is instantiated. The language user makes appropriate language choices according to the variables in the context of situation, and the exchange of meaning becomes possible. Register is further explained by three variables (field, tenor, and mode) that relate to three functional components, called metafunctions, in the model. Field corresponds to the experiential function; tenor relates to the interpersonal or social function of language; and mode is linked to the textual function, concerned with the part language plays in making the message. Each of these functions then finds its own place in the lexicogrammatical system through transivity, mood, and theme. Not only does the social order affect language, but the reverse occurs, also. There is a need to raise teachers' and learners' consciousness about language so teachers can work more explicitly with learners and their texts. (Author/MSE)

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USING LINGUISTIC ANALYSIS IN EDUCATIONAL RESEARCH

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BILL WINSER - An overview of current issues in language and education

Faculty of Education
UNIVERSITY OF WOLLONGONG

A Symposium presented to the ANZAAS Centenary Congress,
Sydney, May 1988.

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USING LINGUISTIC ANALYSIS IN EDUCATIONAL RESEARCH

An Overview of Current Issues in Language and Education

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The inadequacies of traditional and transformational models of language are overcome in the systemic - functional approach of Halliday, where meaning is built in to the grammar and the text is the basic unit. The functional approach here is seen in the stress on the role of social/cultural context and the importance of the role of register, which consists of the environment in which text is instantiated. According to the variables in the context of situation the language user makes appropriate language choices, and the exchange of meaning becomes possible. Register is further explicated by means of three variables, field, tenor and mode, which hook up to three functional components of the model, called metafunctions. Field ('what's going on') corresponds to the experiential function, the reflective, outward looking aspect of human experience. Tenor ('who's involved') relates to the interpersonal or social function of language, while mode ('what channel') is linked to the textual function, which is concerned with the part language plays in making the message. Each of these functions then finds its own place in the lexicogrammatical system, through transitivity, mood and theme.

Not only does the social order affect language but the reverse occurs, with typical patterns actually being used to construct the social order. A major conclusion for educators is the pressing need to raise consciousness about language in teachers and learners, so that teachers can work more explicitly with learners and their texts, showing them how they are created and the many ways in which language is used in learning, and how it can often be related to failure at school.

AN OVERVIEW OF CURRENT ISSUES IN LANGUAGE & EDUCATION

BILL WINSER

When we think of language in everyday discourse we usually conjure up sets of ideas that are the result of our experience with traditional grammar (if we are old enough to have had some experience of it), or if we are the product of the last two decades of schooling we probably find it impossible to say much about it at all. The traditional model, one that is often appealed to by the writers of letters to the 'Herald', commonly sets up for us a set of rules to be followed if we wish to see ourselves as competent language users and indeed as educated people who can hold up their heads in the community. This 'table manners' or etiquette model of language is derived from the word class approach of the older latinate grammars that took a prescriptive stance and often were portrayed by their proponents as the last bastions of defence against the barbarians who might sully the language by allowing it to change - always, of course, for the worse.

The problem that we (and many others) find with this approach is that it fails almost entirely to account for the way English actually works, particularly since many of its categories of explanation are based on Latin, an inflected language with little in common with English. Its emphasis on word class study (the 'parts of speech': 'this is a noun', 'these are verbs' etc.) is formal in a sterile sense and distorts any attempt to understand how the language actually functions. The only advantage that knowledge of such an outmoded grammar can have is that it at least provides its users with a way of talking about language so that it cannot remain opaque to its users.

The second major account of language that is influential today has been provide by Noam Chomsky's Transformational-Generative (TG) grammar. This brilliant model portrays language as a fixed universal that is based on Chomsky's notion of the idealised speaker, free of any misleading influences of particular contexts and situations that might disturb the basic analysis. It has a strongly cognitive and individualist, psychological orientation and sets up the sentence as the basic unit. It reflects the dominant American distrust of semantic issues in linguistics and provides only the most abstract analysis of semantics. To those of us with a concern for applying theoretical models of language to educational settings it has enormous weaknesses: the psychological orientation fails to take into account the essentially social institution of schooling, it cannot account for the pervasive phenomenon of variation in language users that all teachers are familiar with, and its inability to deal with stretches of language longer than the sentence is a serious weakness for those concerned with learning from text (or discourse) where important parameters are plainly to be found beyond the sentence level.

These are some of the reasons why we have turned to systemic-functional grammar as the preferred model of language for use in educational research. This theory has been developed over the past twenty five years or so from the work of M. A. K. Halliday, who in turn was influenced by Firth and Malinowski and the Prague school. The assumptions on which it is based and the explanations it provides are much better matched to the features of educational settings and provide a fascinating insight into some of the most fundamental problems of educational practice. In summary it is important for educators because it is a functional rather than a formal or structuralist theory, with a base in social theory and contexts, and a rich description of the semantic aspects of the language. Halliday sees language as a 'social semiotic', a summary term that indicates his orientation to a sociolinguistic approach where language is studied as a social phenomenon based in the culture. In this model the basic unit of language is the *text*, rather than the word or sentence. Here text is conceived as the product of the choices the user has made from the language *systems* (semantics, grammar and phonology) ; it is described as any stretch of language that is functional in its context. Thus the sign "Exit" over a theatre door can be a text, since it works effectively to enable people to get out from the room, just as a long narrative in the form of a novel can be a text, if it functions to hold interest in the 'story' and to generally entertain.

TRADITIONAL GRAMMAR	T. G. GRAMMAR	SYSTEMIC-FUNCTIONAL
Prescriptive rules	Descriptive rules	Systems of choices
Structural	Formal	Functional
Meaning in the form	Meaning an abstraction	Meaning in use
Unit - word classes	Unit - the sentence	Unit - the text
Language - etiquette	Language - cognitive	Language - sociocultural

Figure One: a comparison of the three models.

This table summarises the differences between the three approaches I have been discussing. Before going on to a more detailed description of the theory it is important to emphasise two of its more central characteristics. When Halliday describes language as a *system* he means a series of systems operating at the three levels mentioned above. By system is meant that language users have a series of choices available to them in a given functional environment, sets of options that are organised into networks controlled by entry conditions. So there is a semantic system, a lexicogrammatical system and a phonological system - in common parlance, the meanings, the wordings and the soundings. Thus language does not only consist in 'what is said' but also 'what can

be said' and 'what might be said', thus introducing the possibility for prediction (on a probabilistic basis), since some choices we make become typical, in that we make the same choice pattern regularly and tend to repeat them in similar situations. The second major characteristic is the *functional* approach, where we find a stress on language that is developed by young members of the culture for use in coming to terms with social life, language that is functional both in the sense that we always use it to serve some social purpose and in that it is shaped by the very functions that it serves. Here there is a stress on the effect of various types of situation on the actual choices that are made. Language therefore varies according to the specific situation in which it occurs and according to the context of the wider culture.

One of the principal influences on Halliday was the work of Malinowski who stressed the importance of understanding the context of language if it is to be properly appreciated. He developed the notions of *context of culture* and *context of situation*, the former referring to the more general and overarching environment that encompasses all possible 'situation types', ie., those more specific circumstances that are included in the latter construct. Malinowski refers to a regular event in the lives of the Trobriand Islanders, the return of the fisherman from their day's fishing ouside the safety of the reef, through a dangerous entrance. People would shout warnings and advice as the canoeists manoeuvred; Malinowski realised how difficult it was for him to translate such language and report it to those living in another culture without providing for his readers a description of the context of situation in which this language, or text, occurred. He also realised that such a description would have to be made part of a wider description of the values and beliefs of the whole island culture, since these cultural values and meanings were affecting the specific situation concerned with fishing.

For Halliday, therefore, the culture was seen in a similar fashion. He developed the idea of *the culture as a set of behaviours*; things that people actually do. He argued that the culture comprises the total behavioural options available to its members and thus a total semantic potential for a given society - a potential that is indeterminate and unbounded. We can conveniently summarise this potential as things, the artifacts of the culture, and symbols, the more abstract forms of expression of values and knowledge. However the notion of culture is seen not as an abstraction but as a set of behaviours, the sorts of activities that we can do within our culture. We shall see how the umbrella notion of the context of culture is a fundamental conception for the theory, and that the various situation types, relatively stable, that can be observed within the culture receive their final linguistic expression in corresponding text types, called genres in a recent development of the theory. To sum up, each of us in a culture has available a range of behaviours, what we 'can do', so that when it comes

to what we can do with language we are concerned with what we 'can mean', a meaning potential which is realised in the actual grammatical forms of language, what we 'can say'. What we can say is finally realised in the sound system, which ultimately are phonetic elements. And this product, at the very end of the line, so to speak, is what we 'do say'.

'can do' behavioural potential	---> realised by	'can mean' semantics (linguistic behaviour potential)	---> realised by	'can say' lexicogrammatical potential

all of which results in what we 'do say'.

Figure Two: Language as behaviour.

The context of situation is the essential notion embodied in *register*, which is seen as a part of the *semantic* system and consists in the semiotic structure of the situation, the environment in which actual text will be instantiated, or come into being. It is in the context of situation that the language user's purpose has its genesis, and it is this context that provides the key to the interpretation of the code, the language system, for the listener or reader. Thus the speaker or writer makes language choices that arise from their purpose in the situation, while the exchange of meaning is furthered when the listener/reader uses the situation to crack the code. There are innumerable possibilities here by way of example, according to the complexity of the culture in which we live. There are situations in home life, in family contexts, in our immediate social interactions, and further on into the larger social institutions that comprise our society. But to take a commonplace example, consider the situation where someone at home hears a knock on the door. Immediately a set of expectations will come into play: the newcomer has entered private property with a purpose in mind, the resident is obligated (in most cases) to answer the knock, there is a possibility of goods or services being offered or delivered, the newcomer will only be invited in on the decision of the resident and so on. All of these aspects of the situation will constrain the sort of language to be used: if it is a salesperson, we can anticipate a sales pitch, but the arrival of a friend will be likely to result in a casual conversation, whereas the delivery of goods will be accompanied by the most limited of verbal exchanges in a fairly ritualised fashion.

Therefore the social context of situation constitutes a whole constellation of meanings, the semiotic structure of situation. The situation itself is in an important sense the source of meaning that is likely to be expressed through language. The properties of the situation that have this enabling function are clearly articulated in this model as

three variables which activate the corresponding components in the functional part of the semantic system. This functional aspect will be described in more detail shortly. To sum up, the user makes language choices in response to the variables in the situation, and these choices are seen as the means by which speakers can achieve their purpose.

These three register variables are called *field, tenor* and *mode*. The first refers to 'what's going on' in the situation, the participants and events in which the text is playing some part. Visiting the doctor, playing tennis and buying a paper are all examples of the myriad possibilities of fields; in the last example the talk concerned with the actual purchase constitutes the field, so that conversation about the weather is incidental to this field since it is simply a strategy appropriate to the task. The tenor refers to 'who is involved', the social relationships in the situation usually involving power, affect and degrees of contact. In the doctor's surgery there is a marked disparity in status that is usually reversed in the shopping context. The last variable, mode, refers to the part played by language in the situation, its function and status, including the channel of communication used (spoken or written) and particularly the distance between the participants in the exchange. It can be seen that it differs from the other two since it is not directly concerned with the real world situation. The examples given here all use the spoken medium and assign a fairly central role to language, except in the case of tennis; they all have the interlocutors using language to accompany the action, whereas there are developments of all these situations where the language could actually constitute the action. If the situation changed a little we could envisage the patient reflecting on the visit to the doctor, or a TV commentary on the tennis, where there is a reflective use of language to reconstruct the event. As well the feedback between the participants can vary, as between face to face contact, telephone, radio and written text. Thus a register is defined as a set of semantic resources activated by a given combination of field, tenor and mode variables. It is important to appreciate that it is a semantic construct, a key component of the semantic system. And there will be many registers since there are so many possibilitites for meaning in the many situations of our social life.

The other aspect of the semantic system already referred to is the functional component as seen from the point of view of the language user. Here we have three components corresponding to the register variables (called *metafunctions*); they constitute the range of meanings available in a given social context. Here we are concerned with what users 'can do' with language, with what therefore they 'can mean'. The first function (or metafunction) available to us is called the *experiential* function of language, where we reflect on our world so as to come to terms with reality and make sense of it; this corresponds to and is determined by field. This function comes into play when we are concerned to learn about the world around us, to ask questions about

events and experiences and to form personal constructs that will enable us to create meanings that account for these phenomena. The second function is one that enables us to act on the environment by interacting with other people, and is called the *interpersonal* function, which corresponds to tenor in the situation. It is needed when we move out into the world so as to act and to do so we must in fact interact with other people. Finally there is a function peculiar to language, the *textual* function which has been described as language doing its own thing. This function is not related to the real world but is solely concerned with the part language plays in our achieving our purposes.

What happens in the semantic system therefore is that the register determines or activates the language choices made, by means of a correspondence with the ways of meaning available through the metafunctions. All of this makes up the socio-semiotic environment for any text, so that register is set up as the essential link between the social system and the actualisation of its meaning potential in the utterance that we actually make (the text). This last process takes place through a continuous process of semantic choice thus creating a text seen as product, but one which is also construed as process since it incorporates an exchange of meanings between the participants. The text for Halliday is the basic semantic unit, with a generic (beginning-middle-end) structure of its own and a 'texture' made up of internal cohesion and a cohesion with its context. There are of course as many texts as there are situation types, but they do tend to have distinctive patterns which Martin has more recently called genres,the basis for a newer genre-based approach now becoming influential in schools (Martin & Painter,1986). Martin stresses the need to focus on the schematic structure of text, in typical staged form, as well as on its theme, both of which he argues show more clearly how the user's purpose is achieved.

We now move down from the first level of language, the semantic system, and can see that the text is expressed and integrated by the second level, the *lexicogrammatical* system. Here we focus on what the speaker 'can say', through choices in this multilayered system, the heart of which is the clause. At the clause level *transitivity* is the aspect of the grammar which realises the experiential function and field; transitivity is the means we have for the expression of activity involving participants ('nouns), processes ('verbs') and circumstances ('phrases'). We have already seen how there are innumerable fields and that the experiential function is concerned with developing meanings about the real world, so the expression of these experiential meanings will inevitably have to include the people and things and events and our experiences and 'what happens' about all these. This is what is meant by participants, processes and circumstances, corresponding to the traditional 'nouns', 'verbs' and various adverbial forms.

Next the *mood* system of the verb realises the interpersonal function and tenor by the expression of attitude (definiteness,

uncertainty, questioning etc). Mood (which is only one aspect in the clause associated with tenor) is the means we have of indicating to our hearers how we understand our relationship to them: we may give orders (the 'imperative'), thus indicating that we exercise power over others, or ask questions, indicating uncertainty, interest, or politeness even, or make declarations of what it is we wish to express in the form of statements, where the relationship is probably more equal. Jan Wright's work is focussed in this area and she will show in more detail how tenor is involved in school settings where gender is being constructed in various ways.

The textual function and mode are realised by *theme* in the clause and by the *reference* system which points forward and backward throughout the text. It enables the speaker to organise the language and message into what we have called a text: the coherent and unified basic unit of the approach to language we are concerned with here. Every clause has a basic starting point, nearly always at its beginning, which constitutes its theme: "The effects of the Stock Market crash", "A Surry Hills reader was buying bread and milk...", "I think it's time to go home" are examples. The theme is developed throughout the text, most clearly in conversations where we develop the theme, like a topic, as we proceed with our discussion. The reference system consists of items like 'this', all the pronouns (like 'I' above) and other words which refer back or ahead in the text so as to link up the various topics, like a chain with its various links. Mode and the textual function are aspects of this theory that are of particular concern in literacy development which Jenny Hammond will discuss in her paper.

At this level we have been concerned with what the speaker 'can say', the 'wording' or lexicogrammatical level of the model, and we find here a rich system network of options available for the expression of activity and attitude and for the organisation of texts so that they will be coherent and effective. Thus the clause can be summed up as a 'unit in which meanings of three diferent kinds are combined.' (Halliday, 1985, 38) The grammar, then, is the 'central processing unit of a language, where meanings are accepted from different metafunctional inputs and spliced together to form integrated outputs, or wordings' (Halliday, 1985, xxxiv, xxxv.) The semantic code of any language, determined by the culture, is the basis of the meaning of any utterance. When we wish to come to grips with meaning in a text, as listeners or readers, we must unravel the code, and to understand this we must both examine the situation and use the grammar seen as a whole.

Finally, at the third level in the tri-stratal model, we come to the bottom line in the *phonological* system, or the graphological system if we are concerned with written text. This is the level at which the 'sounding' is to be found, realised essentially in the syllable, the basic unit of what we 'do say'. Intonation and rhythm are two important features of English where meaning is expressed, and Halliday gives an

account of intonational and rhythmic structure and tone so as to clarify these aspects of the spoken language and to demonstrate their contribution to the interpretation of texts (Halliday, 1985).

I now propose to provide an extended illustration of the central features of the theory. Since the social context is so important in my exposition it is important to set out the context clearly. I have chosen a situation from family life, where mother and child are in conflict and the mother has to express control over the child's behaviour. Here the sociosemantic network would involve both threats and warnings, but the subgroup of threats will suffice for our purposes (for a longer illustration of this situation, see Halliday, 1973). Below is a system network illustrating the way threats can occur:

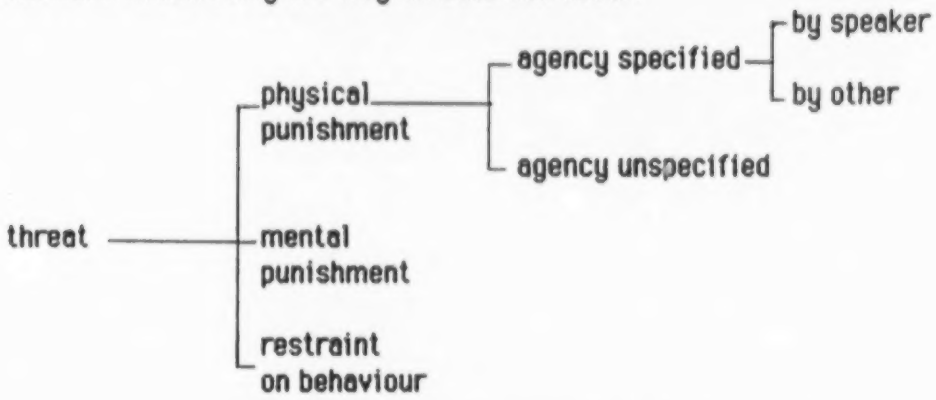

Figure Three: network of behaviour for threat.

When we move down to the lexicogrammatical system level the following realisations can be proposed:

Semantic term	Lexicogrammatical realisation
Physical punishment	Clause - action (material process), two participants, future tense.
Agency specified	Voice - active.
Agency unspecified	Voice - passive.
By speaker	Actor - "I".
By other	Actor - "Daddy" etc.
Mental punishment (adjective)	Clause - relational (being), attribute
Restraint on behaviour	Clause - action (material process), modulated, Actor = "you".

Figure Four: network and realisation rules for 'threat'.

Here are examples of these threats, working through all the possibilities of the network above:

1. I'll smack you. (physical punishment, agency specified, by speaker)
2. Daddy'll smack you. (physical punishment, agency specified, by other)
3. You'll get smacked. (physical punishment, agency unspecified)
4. I shall be cross with you. (mental punishment, by speaker)
5. Daddy'll be cross with you. (mental punishment, by other)
6. You'll have to come in (if you keep kicking the ball into next door's garden) (From Butler, 1985, p. 62)

While we have argued here that an important and central feature of this theory is that language is activated and determined by social contextual factors in the culture it must now be pointed out that this is not a one way process. To leave the picture like that would mean that language is a phenomenon that only reacts to the culture and is entirely dependent on it. In fact the relationship is dialectical, for a number of reasons. What happens when language is being used is that typical patterns emerge, being constantly used in similar situations. We also regularly limit ourselves in the choices we make from the language system. These typical, limited patterns then become part of the social environment, like the Oz male 'g'day mate'. In this way texts actually become part of the context of succeeding texts, a notion we might call intertextuality. In this sense language can actually construct the social order, although very commonly it does so by stealth, because nearly everyone treats it as transparent: for most people language is simply 'content'. This is why language can position people in the culture so effectively, and therefore why its effects are so potent. There are interesting examples of this in popular magazines, where one cultural aspect, gender, is strongly constructed for the readers. Kress (1985) shows how women are set up as compliant readers who, the magazine expects, will accept the presuppositions about their status in society that are taken for granted in personal advice articles that purport to assist women in pdresenting themselves attractively to men.

It must be apparent therefore that one of our major concerns here is to raise consciousness about language and its ways of functioning, so as to enable learners to see more clearly what is involved in the curriculum - and beyond that, to see how language can be used to position them in the social order. And here, of course, institutions like the family, the media and politics and economics are leading contenders in the race to position people according to the various value orientations of these institutions.

Halliday has argued (Halliday, 1982) that such a functional grammar as we have been describing here is useful in schooling as a source of ideas for teachers, not as a book about grammar that could be given to students to work through. When teachers appreciate how language operates as a resource for meaning they will then be in a position to be able to show learners how exactly it is that a text is

effective, ie., how it is able to actually make meaning. If the teacher realises that a text is to be understood in relation to its context and that its language will vary according to this situation then they will be in a position to discuss this quite explicitly with learners who are themselves producing written work or engaged in interpreting it as readers. We are all familiar with the confusion that results in our minds when a teacher comments 'this doesn't make your point clear', but fails to help us see what it actually is that has hindered us in making our meaning clear when we are writing. There are many classroom situations where puzzled readers are asked to comment on a piece of literature (or a 'story' in the case of younger children), or to discuss a technical book but can never see why the interpretation the teacher is propounding is the 'right' one. Teachers who understand language's functional varieties along the lines sketched out here will not leave their classes confused as they will be able to deal openly with the language itself as part of the task. It is important to note here too that these issues do not apply only to English teachers, as all teachers are concerned with text as defined here, both oral and written.

To sum up, this account of language shows how a user's purpose arises from the social context which in turn determines the language choices made through the register variables and the metafunctions. In this way texts are created, finding their expression in different genres whose function is to satisfy social needs. This theory of language as choice represents it as a resource for making meaning, and a means of getting things done. Language, with its environment consisting of the culture, is manifested through text, which has its environment in the context of situation.

A grasp of this theory enables language educators to know what speakers can say and what they are likely to say. We can therefore predict, on a probabilistic basis, the language that will be used in given situations. This puts us in a position where we can describe and analyse how language plays a part in learning in schools, and most important, can give an explanation of how failure at school may in fact be failure with language, which is so central in all aspects of classroom interactions. Language is developed by children and used by everyone to come to terms with their world, described here as experiential and interpersonal meanings about the world. Language is therefore a resource for making meaning and is essential for the construction of knowledge and to enable learners' to access knowledge. To be able to learn, to know and to mean the learner must be able to use language as the essential resource. For us, language is the crucial element in all school learning.

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